

Minnesota Smoking Prevention Program

Benefit-cost estimates updated December 2014. Literature review updated December 2014.

Current estimates replace old estimates. Numbers will change over time as a result of model inputs and monetization methods.

The WSIPP benefit-cost analysis examines, on an apples-to-apples basis, the monetary value of programs or policies to determine whether the benefits from the program exceed its costs. WSIPP's research approach to identifying evidence-based programs and policies has three main steps. First, we determine "what works" (and what does not work) to improve outcomes using a statistical technique called meta-analysis. Second, we calculate whether the benefits of a program exceed its costs. Third, we estimate the risk of investing in a program by testing the sensitivity of our results. For more detail on our methods, see our [technical documentation](#).

Program Description: The Minnesota Smoking Prevention Program (MSPP) is a school-based tobacco prevention program for adolescents. MSPP addresses tobacco use by influencing the social and psychological factors that encourage the onset of smoking.

Benefit-Cost Summary

Program benefits		Summary statistics	
Participants	\$1,298	Benefit to cost ratio	\$86.00
Taxpayers	\$652	Benefits minus costs	\$2,681
Other (1)	\$726	Probability of a positive net present value	94 %
Other (2)	\$37		
Total	\$2,712		
Costs	(\$32)		
Benefits minus cost	\$2,681		

The estimates shown are present value, life cycle benefits and costs. All dollars are expressed in the base year chosen for this analysis (2013). The economic discount rates and other relevant parameters are described in our [technical documentation](#).

Detailed Monetary Benefit Estimates

Source of benefits	Benefits to				Total benefits
	Participants	Taxpayers	Other (1)	Other (2)	
From primary participant					
Labor market earnings (hs grad)	\$1,281	\$547	\$633	\$0	\$2,461
Health care (smoking)	\$17	\$105	\$92	\$53	\$267
Adjustment for deadweight cost of program	\$0	\$0	\$0	(\$16)	(\$16)
Totals	\$1,298	\$652	\$726	\$37	\$2,712

We created the two "other" categories to report results that do not fit neatly in the "participant" or "taxpayer" perspectives. In the "Other (1)" category we include the benefits of reductions in crime victimization and the economic spillover benefits of improvement in human capital outcomes. In the "Other (2)" category we include estimates of the net changes in the value of a statistical life and net changes in the deadweight costs of taxation.

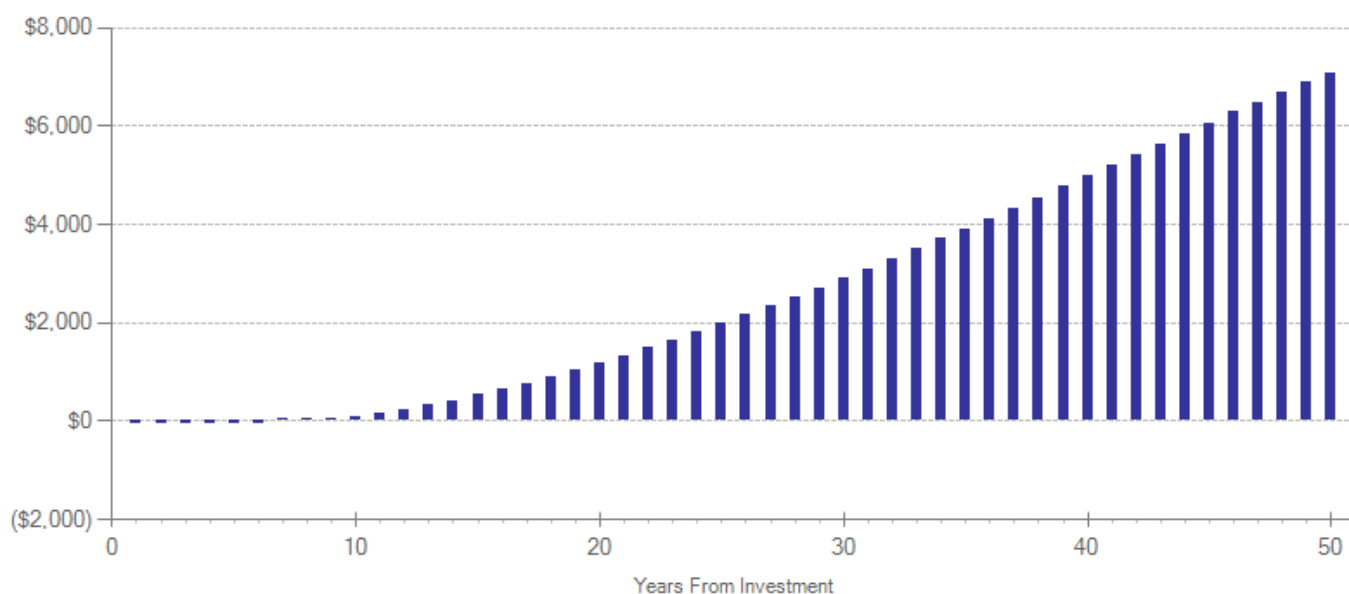
Detailed Cost Estimates

	Annual cost	Program duration	Year dollars	Summary statistics	
Program costs	\$32	1	2013	Present value of net program costs (in 2013 dollars)	(\$32)
Comparison costs	\$0	1	2013	Uncertainty (+ or - %)	10 %

The curriculum materials cost \$249 for each class, serving 30 individuals. <http://www.militaryfamilies.psu.edu/themes/clearinghouse/pdfs/minnesota%20smoking%20prevention%20program%20fact%20sheet.pdf>

The figures shown are estimates of the costs to implement programs in Washington. The comparison group costs reflect either no treatment or treatment as usual, depending on how effect sizes were calculated in the meta analysis. The uncertainty range is used in Monte Carlo risk analysis, described in our [technical documentation](#).

Cumulative Net Cash Flows Over Time (Non-Discounted Dollars)



Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Treatment N	Unadjusted effect size (random effects model)		Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
				ES	p-value	ES	SE	Age	ES	SE	Age
Smoking before end of middle school	Primary	3	6188	-0.308	0.038	-0.230	0.156	13	-0.230	0.156	15

Citations Used in the Meta-Analysis

- Arkin, R., Roemhild, H., Johnson, C.A., Luepker, R., & Murray, D. (1981). The Minnesota Smoking Prevention Program: A seventh grade health curriculum supplement. *Journal of School Health*, 51(19), 611-616.
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For further information, contact:
(360) 586-2677, Institute@wsipp.wa.gov

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